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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,304	04/27/2001	Phillip Clark	MCA-500 US	1202

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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 03/12/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/844,304		CLARK ET AL.	
	Examiner		Art Unit	
		Krishnan S Menon	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-11,13,16,17 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 24-26 is/are allowed.
- 6) ☐ Claim(s) 1-11,13,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-11, 13,16,17 and 24-26 are pending. Claims 12, 14,15 and 18-23 are cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4, 5 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Matkovich et al (US 4,797,259).

Matkovich discloses a 96 array well filter (instant claim 5) (col 1 lines 30-33) on a plate with filter adhesively bonded to the bottom of the well (col 1 line 68-col 2 line 5; col 3 lines 34-37; col 12 lines 45-60) with filtration by pressure differential (col 11 31-33) (instant claim 1), microfiltration as in instant claim(s) 2 (col 2 lines 6-8), the well could be of circular, square or other shapes (instant claim 4) (col 3 lines 12-16), and the filter supported from the bottom with a director sheet (15,29-Fig 3) (instant claim 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matkovich et al (US 4,797,259).

Matkovich teaches all the elements of claim 6 except for the 384 well plate. However, it would be obvious to one of ordinary skill in the art at the time of invention that the 384 well plate is only a further replication of the 'plurality of wells' (abstract) in the plate like the 96 well plate as taught by Matkovich; one would make a 384-well plate for processing larger quantity of samples.

3. Claims 1,2,7,10,11,13,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 5,223,133) in view of Cole et al (US 4,246,339).

Clark (133) discloses a multi-well filter plate comprising a plate (12-Fig 1) having a top and bottom surface, a plurality of holes through the plate, a filter having a first and second surface (23-fig 3), the first surface of the filter sealed to the bottom surface of the plate (19-fig 3) by an adhesive (col 4 lines 18-23, 60-69), seal being leak tight and the liquid passes through the filter on applying a pressure differential (col 3 lines 60-63) as in instant claim 1. Filter is selected from microporous or ultrafiltration membranes (instant claim 2, 16, 17) and cellulose, polyamide, polysulfone, etc, (instant

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claim 11) (col 4 lines 22-40). The material for the plate can be of ABS, polystyrene, etc (instant claim 10, 13) (col 4 lines 42-46; lines 9-12).

Clark does not specifically state using adhesive to seal the membrane to the bottom of the well as in instant claim(s) 1. Cole (339) teaches sealing the membrane to the bottom of the well with an adhesive in a multi-well filter (see fig 1-4, col 2 lines 55-65). It would be obvious to one of ordinary skill in the art at the time of invention to use adhesive to seal the membrane to the bottom of the well as taught by Cole in the teachings of 'any conventional bonding method' of Clark (col 4 lines 17-20) for convenience and quick detachment as taught by Clark. The adhesive can be light or thermally activated as in Clark (lines 62-64) (instant claim 7).

4. Claim 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matkovich et al (US 4,797,259) in view of Fernwood et al (US 5,141,719).

Matkovich et al (US 4,797,259) teaches all the elements of the instant claim(s) as in claim 1 above except the parts being made by injection molding or punching plastic sheets (instant claim(s) 3), and on the pour spout on the director sheet (instant claim 9). Fernwood (5,141,719) teaches a multi-well filter with a director sheet having spouts (15-fig 1) with injection molded plastic parts (5 lines 33-40). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Fernwood (719) in the multi-well filter of Matkovich as alternate but equivalent construction for equivalent function, for convenience and for properly directing the drops of filtrate to the collection wells (see Fernwood col 2 lines 9-26).

Allowable Subject Matter

Claims 24-26 are allowed.

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The following is a statement of reasons for the indication of allowable subject matter: The closest prior art for the instant claim(s) is Matkovich et al (US 4,797,259). Matkovich does not teach forming troughs to contain the adhesive in the well bottom surface, or providing cuts in the membrane to seal through the membrane to prevent cross talk as in the instant claim(s). These improvements are also not readily apparent to one of ordinary skill in the art.

Response to Arguments

Arguments are not persuasive with regards to claims 1-4, 5, 6, 8 and 9.

Applicant's arguments are directed to just one limitation, that is whether the membrane is sealed to the bottom of the well with an adhesive or not. Since Clark does not specifically state adhesive as the applicant argues. Therefore, rejection based on the Clark reference has been modified to 35 USC 103, and accordingly, this second action is being made non-final. Matkovich teaches adhering the membrane to the bottom of the well as discussed in the rejection.

Applicant's argues that Clark does not teach or suggest a multi-well filtration plate. Col 4 lines 12-41 and figures 1 and 3 of Clark teaches multiwell filter plate.

Argument regarding Fernwood reference: It was used as a secondary reference for injection molded parts and the spout.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization

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where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon
Patent Examiner
March 10, 2003


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700